

Leaf chlorophyll content of ornamental plants: a choice of destructive or non-destructive measurement

ABSTRACT

Most leaf chlorophyll determination requires collection and chemical extraction of tissue samples. This destructive method may not be suitable for the time series experiments and studies involving gas exchanges where the in situ measurements of total leaf chlorophyll are needed. Thus, in this study, a portable chlorophyll meter was used to compare the accuracy and validity of chlorophyll determination techniques. Leaf tissues of seven ornamental species were analysed for both methods. Strong correlation values were found between the acetoneextractable method and the portable chlorophyll meter readings. Regression equations were plotted and in most cases the correlations were more than 0.70. These regression equations therefore can be used to give convenient, fast and accurate values to the users.

Keyword: Chlorophyll; Non-destructive sampling; Ornamental crops; SPAD-502